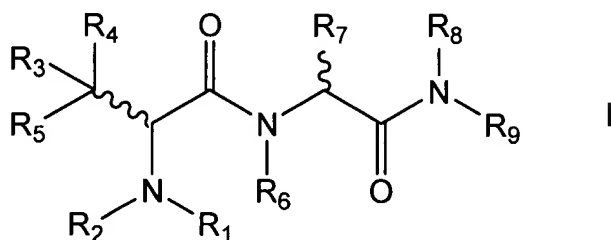


# I. AMENDMENTS TO THE CLAIMS:

Claims 1 to 22. (Canceled)

Claim 23. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, ~~[[,]]~~ and R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, ~~and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, wherein the definition of R is~~ limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, ~~zero to four nitrogen atoms, and zero to four sulfur atoms,~~ and the carbon atoms are optionally substituted with: ~~[[=S,]] -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, or -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;~~

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

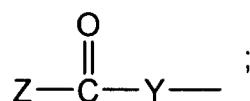
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

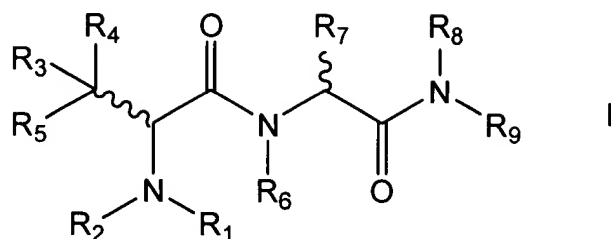
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, and pyrrolyl;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 24. (Withdrawn) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

$R_1$  and  $R_2$  are independently selected from the group consisting of: H, R, and  $ArR$ -, provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, or  $R_1$  and  $R_2$  are joined to form a ring;

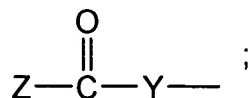
$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and  $ArR$ -, or  $R_3$  and  $R_4$  are joined to form a ring;

$R_5$  is selected from the group consisting of: naphthyl, anthracyl, ~~or~~ and pyrrolyl;

$R_6$  is selected from the group consisting of: H, R, and  $ArR$ -;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H, R, and  $ArR$ -; and

$R_9$  is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $R_1$  and  $R_2$  or by joining  $R_3$  and  $R_4$  is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -

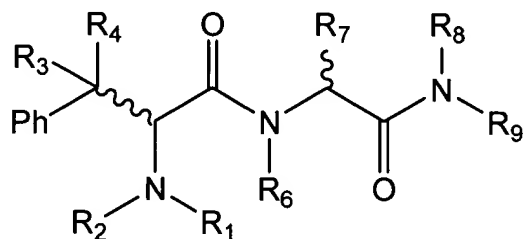
CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 25. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H[[,]] and R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, wherein the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: [[=S,]] -OH, -OR<sub>10</sub>,

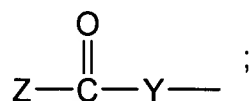
~~O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, or -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>4</sub> and R<sub>2</sub> are joined to form a ring;~~

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>4</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

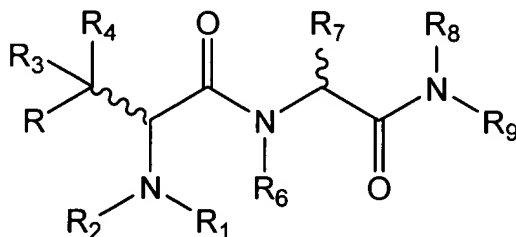
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 26. (Canceled).

Claim 27. (Withdrawn) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

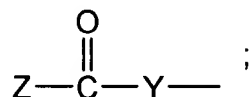
R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;  
and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

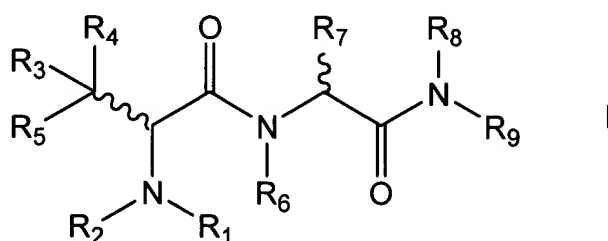
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 28. (Canceled)

Claim 29. (Withdrawn) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

one of R<sub>3</sub> and R<sub>4</sub> is H and the other of R<sub>3</sub> and R<sub>4</sub> is ArR-;

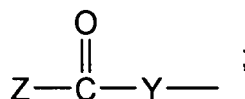
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -



NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

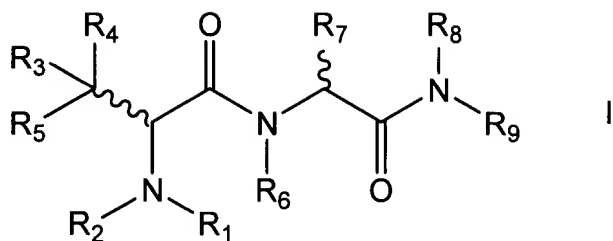
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 30. (Canceled).

Claim 31. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring, or provided that where one of R<sub>1</sub> or R<sub>2</sub> is H, the other is not benzoyl;

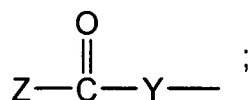
R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: methyl, ethyl, n-propyl and n-butyl;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;  
 and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -

CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

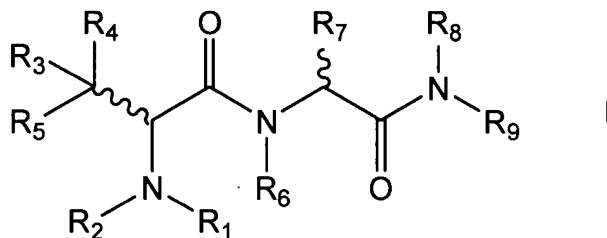
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 32. (Previously Presented) The compound of claim 31, wherein R<sub>3</sub> and R<sub>4</sub> are each -CH<sub>3</sub>.

Claim 33. (Previously Presented) The compound of claim 32, wherein R<sub>5</sub> is Ar.

Claim 34. (Withdrawn) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are joined and form a moiety selected from the group consisting of β-cyclopropyl, β-cyclobutyl, β-cyclopentyl and β-cyclohexyl;

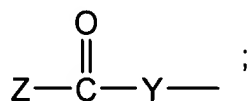
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

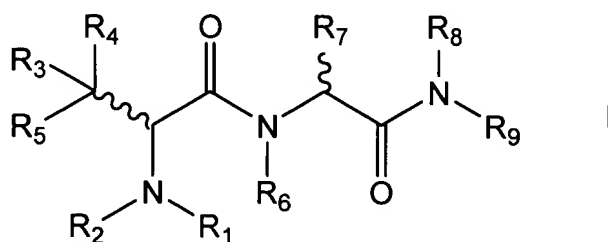
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 35. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of H, methyl, ethyl, propyl, n-butyl and acetyl, provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, ~~then for whichever of R<sub>4</sub> or R<sub>2</sub> is R or ArR, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: -S-, -OH-, -OR<sub>40</sub>-, -O<sub>2</sub>CR<sub>40</sub>-, -SH-, -SR<sub>40</sub>-, -SOCR<sub>40</sub>-, -NH<sub>2</sub>-, -NHR<sub>40</sub>-, -N(R<sub>40</sub>)<sub>2</sub>-, -NHCOR<sub>40</sub>-, -NR<sub>40</sub>COR<sub>40</sub>-, -I-, -Br-, -Cl-, -F-, -CN-, -CO<sub>2</sub>H-, -CO<sub>2</sub>R<sub>40</sub>-, -CHO-, -COR<sub>40</sub>-, -CONH<sub>2</sub>-, -CONHR<sub>40</sub>-, -CON(R<sub>40</sub>)<sub>2</sub>-, -COSH-, -COSR<sub>40</sub>-, -NO<sub>2</sub>-, -SO<sub>3</sub>H-, -SOR<sub>40</sub>-, -SO<sub>2</sub>R<sub>40</sub>-,~~ wherein R<sub>40</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

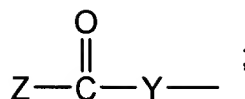
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group, the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

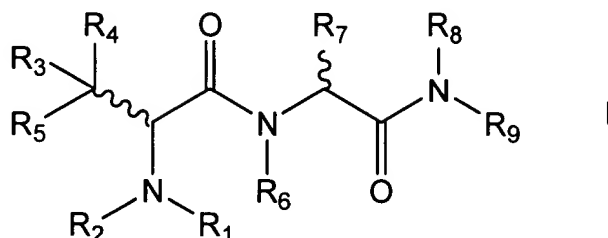
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 36. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are joined and form a moiety selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl;

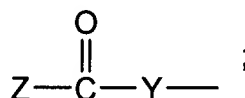
R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;  
 and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group, the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

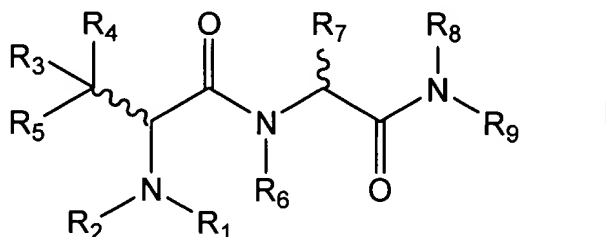
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 37. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently H, CH<sub>3</sub> or acetyl, provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>4</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur



~~atoms, and the carbon atoms are optionally substituted with: =S, —OH, —OR<sub>40</sub>, —O<sub>2</sub>CR<sub>40</sub>, —SH, —SR<sub>40</sub>, —SOCR<sub>40</sub>, —NH<sub>2</sub>, —NHR<sub>40</sub>, —N(R<sub>40</sub>)<sub>2</sub>, —NHCOR<sub>40</sub>, —NR<sub>40</sub>COR<sub>40</sub>, —I, —Br, —Cl, —F, —CN, —CO<sub>2</sub>H, —CO<sub>2</sub>R<sub>40</sub>, —CHO, —COR<sub>40</sub>, —CONH<sub>2</sub>, —CONHR<sub>40</sub>, —CON(R<sub>40</sub>)<sub>2</sub>, —COSH, —COSR<sub>40</sub>, —NO<sub>2</sub>, —SO<sub>3</sub>H, —SOR<sub>40</sub>, —SO<sub>2</sub>R<sub>40</sub>, wherein R<sub>40</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group;~~

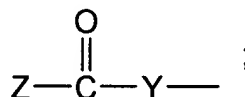
R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, —OH, —OR<sub>10</sub>, —O<sub>2</sub>CR<sub>10</sub>, —SH, —SR<sub>10</sub>, —SOCR<sub>10</sub>, —NH<sub>2</sub>, —NHR<sub>10</sub>, —N(R<sub>10</sub>)<sub>2</sub>, —NHCOR<sub>10</sub>, —NR<sub>10</sub>COR<sub>10</sub>, —I, —Br, —Cl, —F, —CN, —CO<sub>2</sub>H, —CO<sub>2</sub>R<sub>10</sub>, —CHO, —COR<sub>10</sub>, —CONH<sub>2</sub>, —CONHR<sub>10</sub>, —CON(R<sub>10</sub>)<sub>2</sub>, —COSH, —COSR<sub>10</sub>, —NO<sub>2</sub>, —SO<sub>3</sub>H, —SOR<sub>10</sub>, —SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group, the ring formed by joining R<sub>4</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

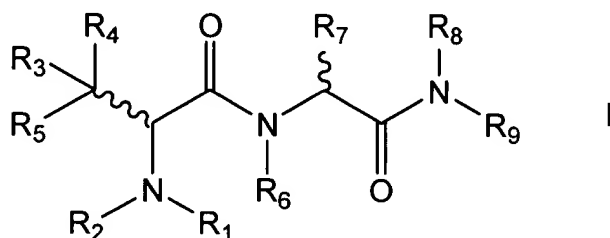
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: —OH, —OR, =O, =S, —O<sub>2</sub>CR, —SH, —SR, —SOCR, —NH<sub>2</sub>, —NHR, —N(R)<sub>2</sub>, —NHCOR, —NRCOR, —I, —Br, —Cl, —F, —CN, —CO<sub>2</sub>H, —CO<sub>2</sub>R, —CHO, —COR, —CONH<sub>2</sub>, —CONHR, —CON(R)<sub>2</sub>, —COSH, —COSR, —NO<sub>2</sub>, —SO<sub>3</sub>H, —SOR, and —SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 38. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently H or CH<sub>3</sub>, provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl; then for whichever of R<sub>4</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, OH, OR<sub>40</sub>, O<sub>2</sub>CR<sub>40</sub>, SH, SR<sub>40</sub>, SOCR<sub>40</sub>, NH<sub>2</sub>, NHR<sub>40</sub>, N(R<sub>40</sub>)<sub>2</sub>, NHCOR<sub>40</sub>, NR<sub>40</sub>COR<sub>40</sub>, I, Br, Cl, F, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sub>40</sub>, CHO, COR<sub>40</sub>, CONH<sub>2</sub>, CONHR<sub>40</sub>, CON(R<sub>40</sub>)<sub>2</sub>, COSH, COSR<sub>40</sub>, NO<sub>2</sub>, SO<sub>3</sub>H, SOR<sub>40</sub>, SO<sub>2</sub>R<sub>40</sub>, wherein R<sub>40</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

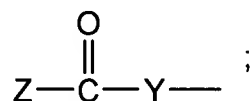
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group, the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected

from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 39. (Previously Presented) The compound of claim 38, wherein R<sub>1</sub> is H, and R<sub>2</sub> is -CH<sub>3</sub>.

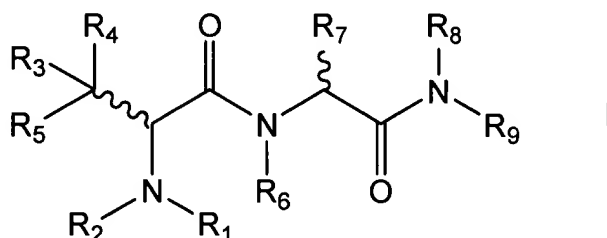
Claim 40. (Previously Presented) The compound of claim 38, wherein R<sub>5</sub> is Ar.

Claim 41. (Previously Presented) The compound of claim 38, wherein R<sub>3</sub> and R<sub>4</sub> are each -CH<sub>3</sub>.

Claim 42. (Previously Presented) The compound of claim 41, wherein R<sub>5</sub> is Ar.

Claim 43. (Previously Presented) The compound of claim 42, wherein R<sub>5</sub> is phenyl.

Claim 44. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, Ar, and ArR, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and ~~provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR, wherein the definition of R is~~ limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, ~~zero to four nitrogen atoms, and zero to four sulfur atoms,~~ and the carbon atoms are optionally substituted with: ~~[[=S,]] -OH, -OR<sub>40</sub>, -O<sub>2</sub>CR<sub>40</sub>, -SH, -SR<sub>40</sub>, -SOCR<sub>40</sub>, -NH<sub>2</sub>, -NHR<sub>40</sub>, -N(R<sub>40</sub>)<sub>2</sub>, -NHCOR<sub>40</sub>, -NR<sub>40</sub>COR<sub>40</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>40</sub>, -CHO, -COR<sub>40</sub>, -CONH<sub>2</sub>, -CONHR<sub>40</sub>, -CON(R<sub>40</sub>)<sub>2</sub>, -COSH, -~~

~~COSR<sub>10</sub>, or -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;~~

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

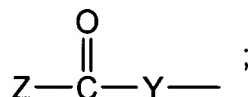
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is H or CH<sub>3</sub>;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R

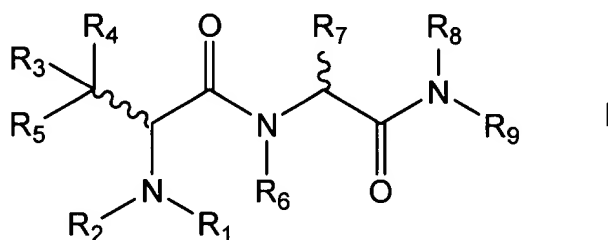
and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 45. (Previously Presented) The compound of claim 42, wherein R<sub>6</sub> is H or CH<sub>3</sub>.

Claim 46. (Previously Presented) The compound of claim 45, wherein R<sub>6</sub> is H.

Claim 47. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, ArR, and ArR, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, ~~and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR, wherein the definition of R is~~ limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, ~~zero to four nitrogen atoms, and zero to four sulfur atoms,~~ and the carbon atoms are optionally substituted with: ~~[[=S,]] -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -GOSR<sub>10</sub>, or -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;~~

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

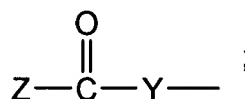
R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> is independently selected from the group consisting of: H, R, and ArR-;

R<sub>8</sub> is H or CH<sub>3</sub>;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>3</sub> and R<sub>4</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R

and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

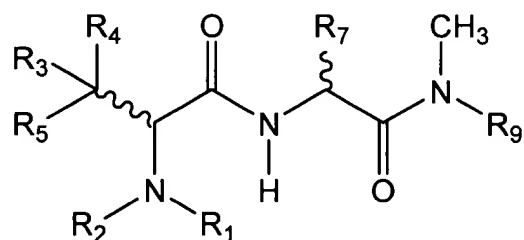
Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 48. (Previously Presented) The compound of claim 42, wherein R<sub>8</sub> is H or CH<sub>3</sub>.

Claim 49. (Previously Presented) The compound of claim 45, wherein R<sub>8</sub> is H or CH<sub>3</sub>.

Claim 50. (Previously Presented) The compound of claim 49, wherein R<sub>8</sub> is CH<sub>3</sub>.

Claim 51. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

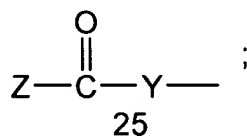
R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>7</sub> is independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:





R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

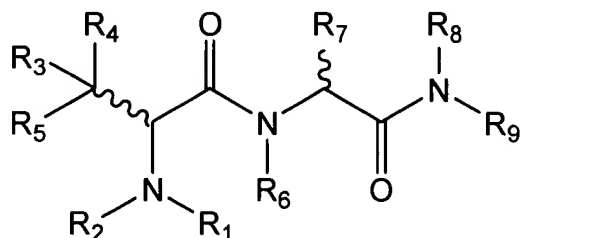
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 52. (Previously Presented) The compound of claim 42, wherein R<sub>6</sub> is H and R<sub>8</sub> is CH<sub>3</sub>.

Claim 53. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

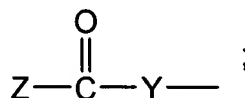
R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> is a three to six carbon atom, branched alkyl group;

R<sub>8</sub> is independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

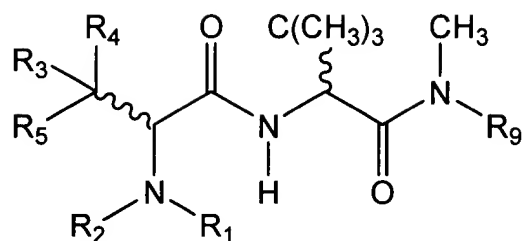
Claim 54. (Previously Presented) The compound of claim 42, wherein R<sub>7</sub> is a three to six carbon atom, branched alkyl group.

Claim 55. (Previously Presented) The compound of claim 45, wherein R<sub>7</sub> is a three to six carbon atom, branched alkyl group.

Claim 56. (Previously Presented) The compound of claim 49, wherein R<sub>7</sub> is a three to six carbon atom, branched alkyl group.

Claim 57. (Previously Presented) The compound of claim 53, wherein R<sub>7</sub> is -C(CH<sub>3</sub>)<sub>3</sub>.

Claim 58. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

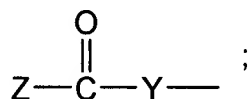
$R_1$  and  $R_2$  are independently selected from the group consisting of: H, R, and  $ArR-$ , provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, or  $R_1$  and  $R_2$  are joined to form a ring;

$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and  $ArR-$ , or  $R_3$  and  $R_4$  are joined to form a ring;

$R_5$  is selected from the group consisting of: H, R,  $ArR-$ , and Ar;

and

$R_9$  is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $R_1$  and  $R_2$  or by joining  $R_3$  and  $R_4$  is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

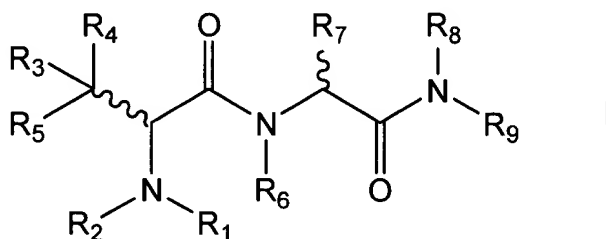
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -

CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 59. (Withdrawn) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

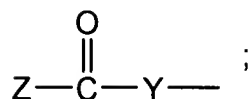
R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

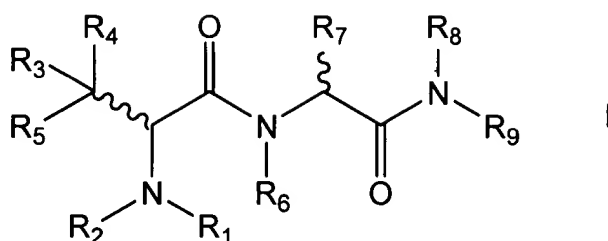
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is -NHCH(R<sub>11</sub>)COOH or -NCH<sub>3</sub>CH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is R; or, (CH<sub>2</sub>)<sub>n</sub>NHC(NH)(NH<sub>2</sub>).

Claim 60. (Withdrawn) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

$R_1$  and  $R_2$  are independently selected from the group consisting of: H, R, and  $ArR-$ , provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, and provided that if either one of  $R_1$  and  $R_2$  is H, each of  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_8$  are H and  $R_5$  is isopropyl or phenyl, and  $R_7$  is methyl or benzyl, then for whichever of  $R_1$  or  $R_2$  is R or  $ArR-$ , the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or  $R_1$  and  $R_2$  are joined to form a ring;

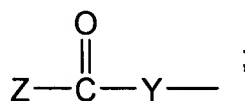
$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and  $ArR-$ , or  $R_3$  and  $R_4$  are joined to form a ring;

$R_5$  is selected from the group consisting of: H, R,  $ArR-$ , and Ar;

$R_6$  is selected from the group consisting of: H, R, and  $ArR-$ ;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H, R, and  $ArR-$ ; and

$R_9$  is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -

$\text{NHR}_{10}$ ,  $-\text{N}(\text{R}_{10})_2$ ,  $-\text{NHCOR}_{10}$ ,  $-\text{NR}_{10}\text{COR}_{10}$ ,  $-\text{I}$ ,  $-\text{Br}$ ,  $-\text{Cl}$ ,  $-\text{F}$ ,  $-\text{CN}$ ,  $-\text{CO}_2\text{H}$ ,  $-\text{CO}_2\text{R}_{10}$ ,  $-\text{CHO}$ ,  $-\text{COR}_{10}$ ,  $-\text{CONH}_2$ ,  $-\text{CONHR}_{10}$ ,  $-\text{CON}(\text{R}_{10})_2$ ,  $-\text{COSH}$ ,  $-\text{COSR}_{10}$ ,  $-\text{NO}_2$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{SOR}_{10}$ ,  $-\text{SO}_2\text{R}_{10}$ , wherein  $\text{R}_{10}$  is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $\text{R}_1$  and  $\text{R}_2$  or by joining  $\text{R}_3$  and  $\text{R}_4$  is a three to seven member non-aromatic cyclic skeleton within the definition of  $\text{R}$ ,

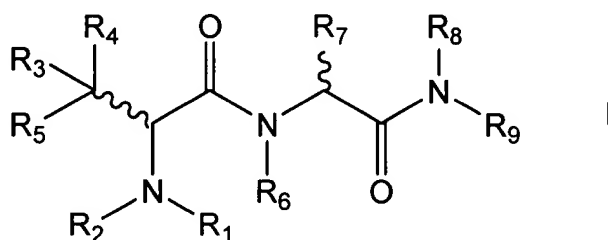
$\text{Ar}$  is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with  $\text{R}$  or  $\text{X}$ ;

$\text{X}$  is defined as a moiety selected from the group consisting of:  $-\text{OH}$ ,  $-\text{OR}$ ,  $=\text{O}$ ,  $=\text{S}$ ,  $-\text{O}_2\text{CR}$ ,  $-\text{SH}$ ,  $-\text{SR}$ ,  $-\text{SOCR}$ ,  $-\text{NH}_2$ ,  $-\text{NHR}$ ,  $-\text{N}(\text{R})_2$ ,  $-\text{NHCOR}$ ,  $-\text{NRCOR}$ ,  $-\text{I}$ ,  $-\text{Br}$ ,  $-\text{Cl}$ ,  $-\text{F}$ ,  $-\text{CN}$ ,  $-\text{CO}_2\text{H}$ ,  $-\text{CO}_2\text{R}$ ,  $-\text{CHO}$ ,  $-\text{COR}$ ,  $-\text{CONH}_2$ ,  $-\text{CONHR}$ ,  $-\text{CON}(\text{R})_2$ ,  $-\text{COSH}$ ,  $-\text{COSR}$ ,  $-\text{NO}_2$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{SOR}$ , and  $-\text{SO}_2\text{R}$ ;

$\text{Y}$  is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with  $\text{R}$ ,  $\text{ArR}-$ , or  $\text{X}$ ; provided however if  $\text{R}_8$  is  $\text{H}$ , then the optional substituents on  $\text{Y}$  are limited to  $\text{R}$  and  $\text{ArR}-$  wherein  $\text{R}$  is linear, branched or cyclic alkyl of one to ten carbon atoms and  $\text{Ar}$  is phenyl, naphthyl, anthracyl, or phenanthryl; and

$\text{Z}$  is  $-\text{OR}_{14}$  in which  $\text{R}_{14}$  is a linear or branched one to six carbon alkyl group.

Claim 61. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

$\text{R}_1$  and  $\text{R}_2$  are independently selected from the group consisting of:  $\text{H}$ ,  $\text{R}$ , and  $\text{ArR}-$ , provided that neither  $\text{R}_1$  or  $\text{R}_2$  is *tert*-butoxycarbonyl, or  $\text{R}_1$  and  $\text{R}_2$  are joined to form a ring;



R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;  
and

R<sub>9</sub> is Y-COOH;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

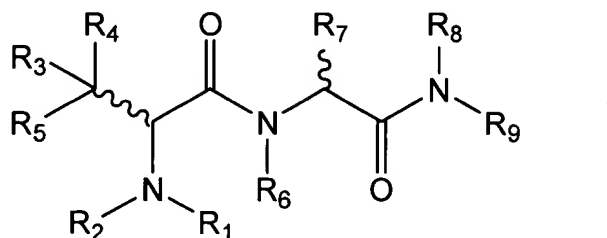
the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;  
and

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl.

Claim 62. (Withdrawn) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;  
 and

R<sub>9</sub> is Y-COOCH<sub>3</sub>;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

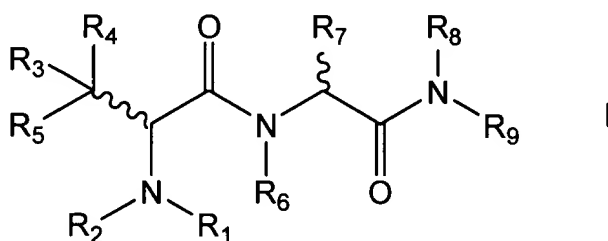
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -

CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X; and

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl.

Claim 63. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

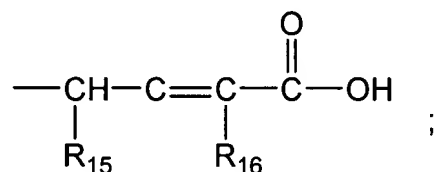
R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;  
and

R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

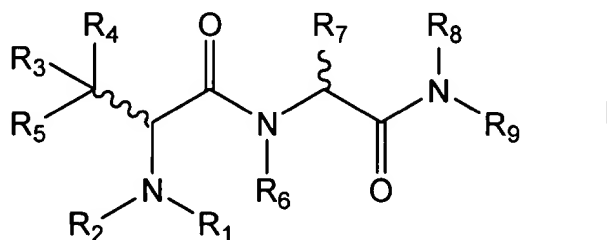
the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;  
and

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -

CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R.

Claim 64. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

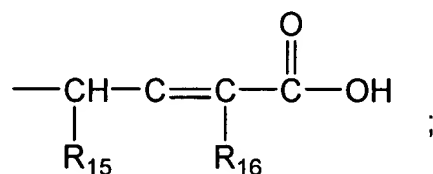
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is methyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -

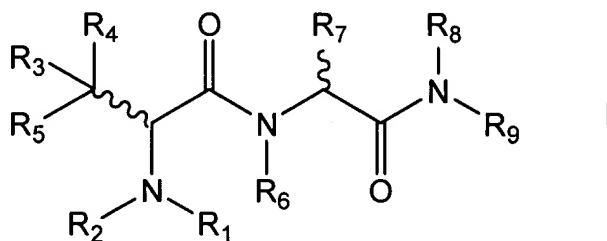
$\text{COR}_{10}$ ,  $-\text{CONH}_2$ ,  $-\text{CONHR}_{10}$ ,  $-\text{CON}(\text{R}_{10})_2$ ,  $-\text{COSH}$ ,  $-\text{COSR}_{10}$ ,  $-\text{NO}_2$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{SOR}_{10}$ ,  $-\text{SO}_2\text{R}_{10}$ , wherein  $\text{R}_{10}$  is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $\text{R}_1$  and  $\text{R}_2$  or by joining  $\text{R}_3$  and  $\text{R}_4$  is a three to seven member non-aromatic cyclic skeleton within the definition of  $\text{R}$ ,

$\text{X}$  is defined as a moiety selected from the group consisting of:  $-\text{OH}$ ,  $-\text{OR}$ ,  $=\text{O}$ ,  $=\text{S}$ ,  $-\text{O}_2\text{CR}$ ,  $-\text{SH}$ ,  $-\text{SR}$ ,  $-\text{SOCR}$ ,  $-\text{NH}_2$ ,  $-\text{NHR}$ ,  $-\text{N}(\text{R})_2$ ,  $-\text{NHCOR}$ ,  $-\text{NRCOR}$ ,  $-\text{I}$ ,  $-\text{Br}$ ,  $-\text{Cl}$ ,  $-\text{F}$ ,  $-\text{CN}$ ,  $-\text{CO}_2\text{H}$ ,  $-\text{CO}_2\text{R}$ ,  $-\text{CHO}$ ,  $-\text{COR}$ ,  $-\text{CONH}_2$ ,  $-\text{CONHR}$ ,  $-\text{CON}(\text{R})_2$ ,  $-\text{COSH}$ ,  $-\text{COSR}$ ,  $-\text{NO}_2$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{SOR}$ , and  $-\text{SO}_2\text{R}$ ; and

$\text{Ar}$  is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with  $\text{R}$  or  $\text{X}$ .

Claim 65. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

$\text{R}_1$  and  $\text{R}_2$  are independently selected from the group consisting of:  $\text{H}$ ,  $\text{R}$ , and  $\text{ArR}-$ , provided that neither  $\text{R}_1$  or  $\text{R}_2$  is tert-butoxycarbonyl, or  $\text{R}_1$  and  $\text{R}_2$  are joined to form a ring;

$\text{R}_3$  and  $\text{R}_4$  are independently selected from the group consisting of:  $\text{H}$ ,  $\text{R}$ , and  $\text{ArR}-$ , or  $\text{R}_3$  and  $\text{R}_4$  are joined to form a ring;

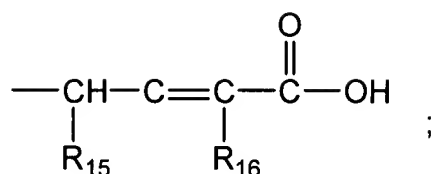
$\text{R}_5$  is selected from the group consisting of:  $\text{H}$ ,  $\text{R}$ ,  $\text{ArR}-$ , and  $\text{Ar}$ ;

$\text{R}_6$  is selected from the group consisting of:  $\text{H}$ ,  $\text{R}$ , and  $\text{ArR}-$ ;

$\text{R}_7$  and  $\text{R}_8$  are independently selected from the group consisting of:  $\text{H}$ ,  $\text{R}$ , and  $\text{ArR}-$ ;

and

$\text{R}_9$  has the formula:



wherein R<sub>15</sub> is isopropyl and R<sub>16</sub> is methyl;

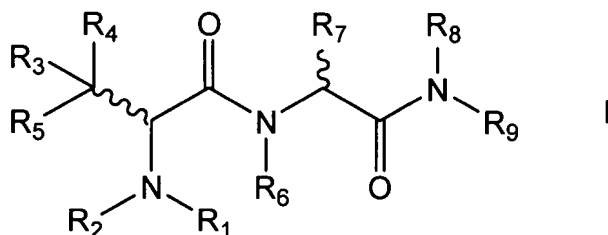
R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R; and

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X.

Claim 66. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

$R_1$  and  $R_2$  are independently selected from the group consisting of: H, R, and  $ArR-$ , provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, or  $R_1$  and  $R_2$  are joined to form a ring;

$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and  $ArR-$ , or  $R_3$  and  $R_4$  are joined to form a ring;

$R_5$  is selected from the group consisting of: H, R,  $ArR-$ , and  $Ar$ ;

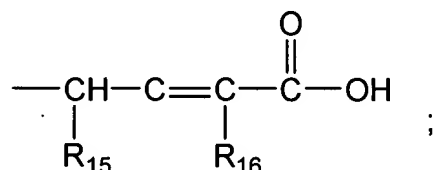
$R_6$  is H or  $CH_3$ ;

$R_7$  is a three to six carbon atom, branched alkyl group;

$R_8$  is independently selected from the group consisting of: H, R, and  $ArR-$ ;

and

$R_9$  has the formula:



wherein  $R_{15}$  is selected from the group consisting of: methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and  $R_{16}$  is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $R_1$  and  $R_2$  or by joining  $R_3$  and  $R_4$  is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -

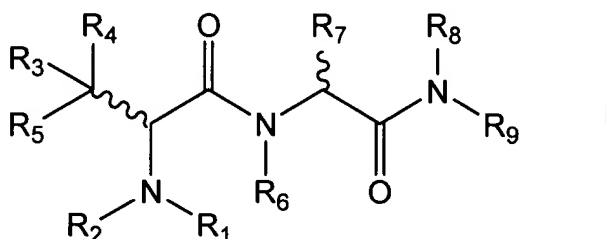


CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R; and

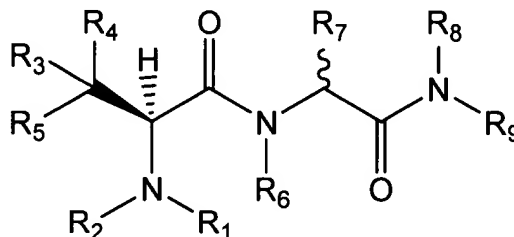
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X.

Claim 67. (Canceled)

Claim 68. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



and having the configuration:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, ArR, and ArR, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR, wherein the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: ~~[[=S,]]~~ -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -

~~COSR<sub>10</sub>, or -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;~~

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

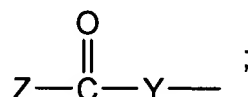
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed ~~by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub>~~ is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

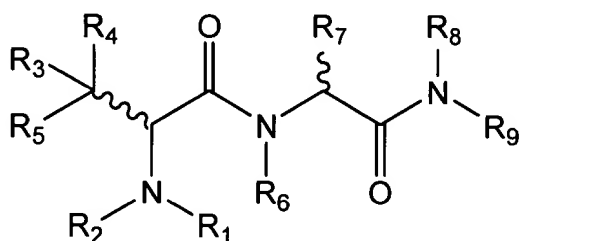
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R

and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

Claim 69. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, ~~[[,]]~~ and R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, ~~and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, wherein the definition of R is~~ limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, ~~zero to four nitrogen atoms, and zero to four sulfur atoms,~~ and the carbon atoms are optionally substituted with: ~~[[=S,]] -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -GOSR<sub>10</sub>, or -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;~~

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

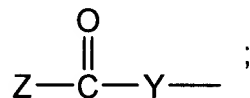
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

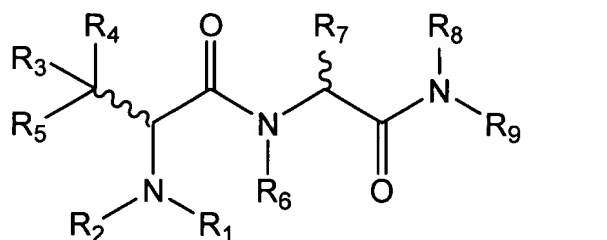
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl, wherein Y comprises a chiral center of the S-configuration and

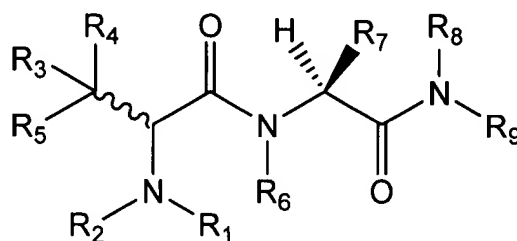
Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the

formula: R, or  $-(CH_2)_nNR_{12}R_{13}$ , wherein  $n=1-4$  and  $R_{12}$  and  $R_{13}$  are independently selected from the group consisting of: H; R; and  $-C(NH)(NH_2)$ , or pharmaceutically acceptable salt thereof.

Claim 70. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



and having the configuration:



wherein:

$R_1$  and  $R_2$  are independently selected from the group consisting of: H,  $ArR$ , and  $ArR$ , provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, and provided that if either one of  $R_1$  and  $R_2$  is H, each of  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_8$  are H and  $R_5$  is isopropyl or phenyl, and  $R_7$  is methyl or benzyl, then for whichever of  $R_4$  or  $R_2$  is R or  $ArR$ , wherein the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with:  $[[=S,]]$  -OH,  $-OR_{10}$ ,  $-O_2CR_{10}$ , -SH,  $-SR_{10}$ ,  $-SO_2R_{10}$ ,  $-NHR_{10}$ ,  $-N(R_{10})_2$ ,  $-NHCOR_{10}$ ,  $-NR_{10}COR_{10}$ , -I, -Br, -Cl, -F, -CN,  $-CO_2H$ ,  $-CO_2R_{10}$ , -CHO,  $-COR_{10}$ ,  $-CONH_2$ ,  $-CONHR_{10}$ ,  $-CON(R_{10})_2$ , -COSH, -COSR<sub>10</sub>, or -NO<sub>2</sub>,  $-SO_3H$ ,  $-SOR_{10}$ ,  $-SO_2R_{10}$ , wherein  $R_{10}$  is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or  $R_1$  and  $R_2$  are joined to form a ring;

$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and  $ArR$ , or  $R_3$  and  $R_4$  are joined to form a ring;

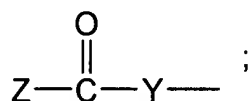
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

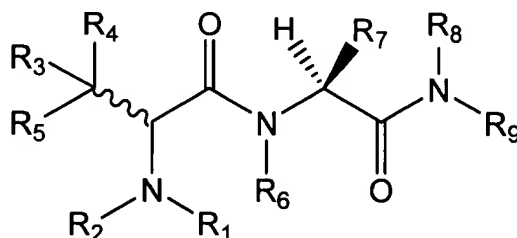
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

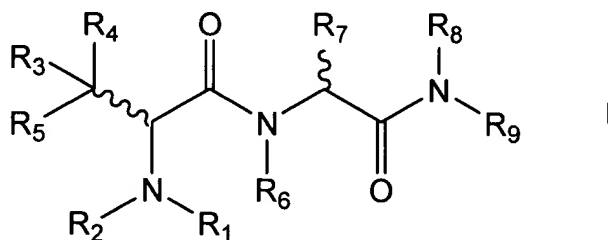
Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the

formula: R, or  $-(CH_2)_nNR_{12}R_{13}$ , wherein  $n=1-4$  and  $R_{12}$  and  $R_{13}$  are independently selected from the group consisting of: H; R; and  $-C(NH)(NH_2)$ , or pharmaceutically acceptable salt thereof.

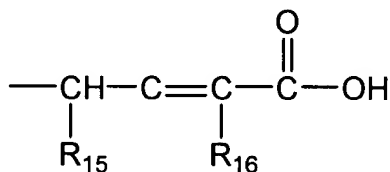
Claim 71. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the configuration:



and having the formula:



wherein  $R_5$  is Ar;  $R_3$  and  $R_4$  are each  $CH_3$ ;  $R_1$ ,  $R_2$ ,  $R_6$  and  $R_8$  are independently H or  $CH_3$ ;  $R_7$  is a three to six carbon branched alkyl group; and,  $R_9$  has the formula



wherein  $R_{15}$  is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and  $R_{16}$  is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with:  $=O$ ,  $=S$ ,  $-OH$ ,  $-OR_{10}$ ,  $-O_2CR_{10}$ ,  $-SH$ ,  $-SR_{10}$ ,  $-SOCR_{10}$ ,  $-NH_2$ ,  $-NHR_{10}$ ,  $-N(R_{10})_2$ ,  $-NHCOR_{10}$ ,  $-NR_{10}COR_{10}$ ,  $-I$ ,  $-Br$ ,  $-Cl$ ,  $-F$ ,  $-CN$ ,  $-CO_2H$ ,  $-CO_2R_{10}$ ,  $-CHO$ , -

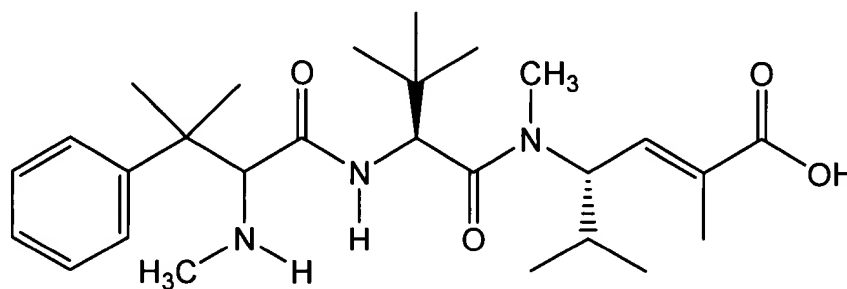
$\text{COR}_{10}$ ,  $-\text{CONH}_2$ ,  $-\text{CONHR}_{10}$ ,  $-\text{CON}(\text{R}_{10})_2$ ,  $-\text{COSH}$ ,  $-\text{COSR}_{10}$ ,  $-\text{NO}_2$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{SOR}_{10}$ ,  $-\text{SO}_2\text{R}_{10}$ , wherein  $\text{R}_{10}$  is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $\text{R}_1$  and  $\text{R}_2$  or by joining  $\text{R}_3$  and  $\text{R}_4$  is a three to seven member non-aromatic cyclic skeleton within the definition of  $\text{R}$ ,

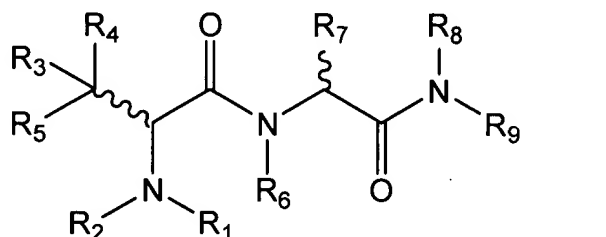
$\text{X}$  is defined as a moiety selected from the group consisting of:  $-\text{OH}$ ,  $-\text{OR}$ ,  $=\text{O}$ ,  $=\text{S}$ ,  $-\text{O}_2\text{CR}$ ,  $-\text{SH}$ ,  $-\text{SR}$ ,  $-\text{SOCR}$ ,  $-\text{NH}_2$ ,  $-\text{NHR}$ ,  $-\text{N}(\text{R})_2$ ,  $-\text{NHCOR}$ ,  $-\text{NRCOR}$ ,  $-\text{I}$ ,  $-\text{Br}$ ,  $-\text{Cl}$ ,  $-\text{F}$ ,  $-\text{CN}$ ,  $-\text{CO}_2\text{H}$ ,  $-\text{CO}_2\text{R}$ ,  $-\text{CHO}$ ,  $-\text{COR}$ ,  $-\text{CONH}_2$ ,  $-\text{CONHR}$ ,  $-\text{CON}(\text{R})_2$ ,  $-\text{COSH}$ ,  $-\text{COSR}$ ,  $-\text{NO}_2$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{SOR}$ , and  $-\text{SO}_2\text{R}$ ;

$\text{Ar}$  is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with  $\text{R}$  or  $\text{X}$ .

Claim 72. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



Claim 73. (Currently Amended) A pharmaceutical composition comprising a compound or pharmaceutically acceptable salt thereof, of the formula



wherein:



$R_1$  and  $R_2$  are independently selected from the group consisting of: H, [[,]] and  $R$ , and  $ArR$ -, provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, ~~and provided that if either one of  $R_1$  and  $R_2$  is H, each of  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_8$  are H and  $R_5$  is isopropyl or phenyl, and  $R_7$  is methyl or benzyl, then for whichever of  $R_1$  or  $R_2$  is  $R$  or  $ArR$ -, wherein the definition of  $R$  is~~ limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, ~~zero to four nitrogen atoms, and zero to four sulfur atoms,~~ and the carbon atoms are optionally substituted with: ~~[[=S,]] -OH, -OR<sub>40</sub>-, O<sub>2</sub>CR<sub>40</sub>-, -SH, -SR<sub>40</sub>-, -SOCR<sub>40</sub>-, -NH<sub>2</sub>-, -NHR<sub>40</sub>-, -N(R<sub>40</sub>)<sub>2</sub>-, -NHCOR<sub>40</sub>-, -NR<sub>40</sub>COR<sub>40</sub>-, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>40</sub>-, -CHO, -COR<sub>40</sub>-, -CONH<sub>2</sub>-, -CONHR<sub>40</sub>-, -CON(R<sub>40</sub>)<sub>2</sub>-, -COSH, -COSR<sub>40</sub>-, or -NO<sub>2</sub>-, -SO<sub>3</sub>H, -SOR<sub>40</sub>-, -SO<sub>2</sub>R<sub>40</sub>-, wherein  $R_{40}$  is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or  $R_1$  and  $R_2$  are joined to form a ring;~~

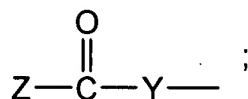
$R_3$  and  $R_4$  are independently selected from the group consisting of: H,  $R$ , and  $ArR$ -, or  $R_3$  and  $R_4$  are joined to form a ring;

$R_5$  is selected from the group consisting of: H,  $R$ ,  $ArR$ -, and  $Ar$ ;

$R_6$  is selected from the group consisting of: H,  $R$ , and  $ArR$ ;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H,  $R$ , and  $ArR$ ;-  
 and

$R_9$  is:



$R$  is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>-, -O<sub>2</sub>CR<sub>10</sub>-, -SH, -SR<sub>10</sub>-, -SOCR<sub>10</sub>-, -NH<sub>2</sub>-, -NHR<sub>10</sub>-, -N(R<sub>10</sub>)<sub>2</sub>-, -NHCOR<sub>10</sub>-, -NR<sub>10</sub>COR<sub>10</sub>-, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>-, -CHO, -COR<sub>10</sub>-, -CONH<sub>2</sub>-, -CONHR<sub>10</sub>-, -CON(R<sub>10</sub>)<sub>2</sub>-, -COSH, -COSR<sub>10</sub>-, -NO<sub>2</sub>-, -SO<sub>3</sub>H, -SOR<sub>10</sub>-, -SO<sub>2</sub>R<sub>10</sub>-, wherein  $R_{10}$  is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $R_1$  and  $R_2$  or by joining  $R_3$  and  $R_4$  is a three to seven member non-aromatic cyclic skeleton within the definition of  $R$ ,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

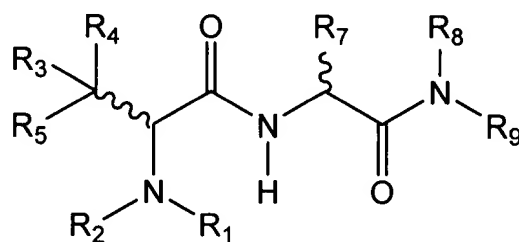
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof; and an acceptable pharmaceutical excipient.

Claim 74. (Withdrawn) A method of treating tumors by arresting cell mitosis in a patient in need of such treatment comprising administering to said patient an anti-mitotic effective amount of at least one compound of claim 22.

Claim 75. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected such that neither R<sub>1</sub> or R<sub>2</sub> is tertbutoxy carbonyl (tboc), from the group consisting of: H and a saturated or unsaturated moiety

having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, ~~zero to one nitrogen atoms, zero to four sulfur atoms~~ and the carbon atoms are optionally substituted with: ~~[[=S,]] -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO, -CONH<sub>2</sub>, -COSH, and -NO<sub>2</sub> and -SO<sub>3</sub>H;~~

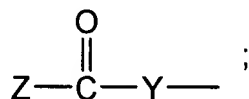
R<sub>3</sub> and R<sub>4</sub> are H or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic alkyl containing one to ten carbon atoms optionally substituted with: =O, =S, -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO, -CONH<sub>2</sub>, -COSH, -NO<sub>2</sub>, -SO<sub>3</sub>H, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>7</sub> is ArR- or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO, -CONH<sub>2</sub>, -COSH, -NO<sub>2</sub>;

R<sub>8</sub> is selected from the group consisting of: H and a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms optionally substituted with -OH; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed ~~by joining R<sub>4</sub> and R<sub>2</sub>~~ or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

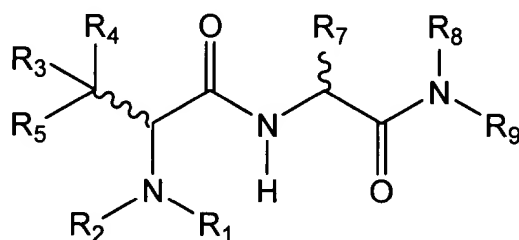
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with:

- (a) phenyl,
- (b) naphthyl,
- (c) anthracyl,
- (d) phenanthryl, or

(e) a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton consisting of one to ten carbon atoms optionally substituted with: =S, -OH; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; or pharmaceutically acceptable salt thereof.

Claim 76. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, of the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, methyl, ethyl, propyl and n-butyl;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of H, methyl, ethyl, n-propyl and n-butyl, or R<sub>3</sub> and R<sub>4</sub> are joined to form a three to seven member non-aromatic ring;

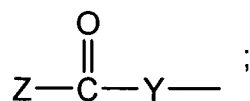
R<sub>5</sub> is selected from the group consisting of: R, ArR-, and Ar;

R<sub>7</sub> is ArR- or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO;

R<sub>8</sub> is selected from the group consisting of: H and CH<sub>3</sub>;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

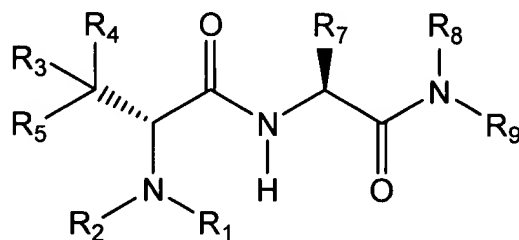
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with phenyl, naphthyl, anthracyl, phenanthryl or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms optionally substituted with: =S, -OH; and

Z is defined as a moiety selected from the group consisting of: -OH; -OR; -SH; -SR; -NH<sub>2</sub>; or pharmaceutically acceptable salt thereof.

Claim 77. (Previously Presented) The compound of claim 75, of the configuration:



Claim 78. (Previously Presented) The compound of claim 75, of the configuration:

